UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,556	08/25/2003	Michael Yagjian	14578	5147

23676 7590 02/24/2006

SHELDON & MAK, INC
225 SOUTH LAKE AVENUE
9TH FLOOR
PASADENA, CA 91101

EXAMINER	
CHAWLA, JYOTI	
ART UNIT	**PAPER NUMBER**
1761	

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,556	YAGJIAN, MICHAEL	
	Examiner	Art Unit	
	Jyoti Chawla	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 12/10/06 ~~10/18/05~~ 2/7/06
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 6, 8, 12, 13, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hsu (US 4517215).

3. Claims 1, 2, 4, 6 and 8 recites a pasta suitable for preparing a stuffed pasta product, the pasta being prepared from a mixture comprising of Soy protein, wheat gluten, soy flour, a stabilizer capable of providing the mixture with sufficient strength, flexibility and elasticity for the mixture to be formed into an envelope having a hollow core with a volume of between 0.001 cubic inch and 0.5 cubic inch, water and egg whites. Claims 2, 4, 6 and 8 which recite that the stabilizer is a gum, an alginate, specifies sodium alginate and its range in the mixture is between 0.2-0.8%

4. In regards to claim 1, Hsu teaches preparation of vegetable pastas from tuberous or seed vegetables with no or substantially no wheat flours added (column1, lines 10-17). Hsu's pasta product has soy flour, soy powder, gums, sodium alginate, egg whites, wheat gluten and water. Among the list of products of Hsu's composition is manicotti, which is a large tube like pasta mostly filled with cheese or meat. In regards to claims 2,

4, 6, and 8 Hsu teaches a mixture of certain alginate gums, including sodium or potassium alginate in the range of 0.25-3% by weight of the mixture (column 1, lines 63-66), which anticipates the range specified by the applicant.
Since Hsu teaches the stabilizer in the recited range of the applicant, Hsu must inherently teach the pasta product with sufficient flexibility and elasticity capable of preparing a stuffed pasta product, which anticipates applicant's claims.

5. In regards to claim 12, which recites the percent of gluten in the mixture in the range of 15-20%, Hsu teaches addition of wheat gluten conveniently up to 20% by weight (column 2, lines 20-23) which anticipates applicant's claim.

6. In regards to claim 13, which recite the percent of soy flour in the mixture in the range of 20-25%, Hsu teaches addition of soy flour (seed vegetable powder column 1, lines 54-57) either as flour or powder or granules from 20-60% by weight (column 2, lines 3-6), which anticipates applicant's claim.

7. In regards to claim 14, which recites the percent of water in the mixture in the range of 25-35%, Hsu teaches addition of water to moisten the pasta composition between 25-45% by weight (column 2, lines 23-27) which anticipates applicant's claim.

8. In regards to claim 15, which recites the percent of egg whites in the mixture in the range of 3-6%, Hsu teaches addition of egg white either as powder or liquid and upto15% by weight (column 2, lines 12-15) which anticipates applicant's claim.

9. Hsu includes soybeans as seed vegetables (column 1, lines 54-57). Hsu also teaches the use of seed vegetables as flour or powder form, which is the precooked material (column 1, lines 57-62).

Therefore Hsu anticipates applicant's recitation of claims 1, 2, 4, 6, 8, 12-15.

10. Claims 1, 2, 4, 6, 8, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Barnes et al (US 5139808) ("Barnes").

11. In regards to claims 1, 2, 4, 6, and 8 Barnes teaches preparation of frozen pastas. Barnes pasta product has soy flour, soy protein isolate, gums, sodium alginate, egg whites, wheat gluten and water Column 1, lines 5-60). Barnes pasta products include stuffed pasta like ravioli and tortellini and other forms of extruded pasta. Therefore, Barnes does teach a pasta composition capable of making stuffed pasta.

In regards to claims 2, 4, 6, and 8 Barnes teaches alginate gums, including sodium or potassium alginate, up to 5% by weight of flour (column 2, lines20-30), which includes the range specified by the applicant. Since Barnes teaches the stabilizer in the recited range of the applicant, and also makes stuffed pasta products like ravioli and tortellini, he inherently teaches the pasta product with sufficient flexibility and elasticity capable of preparing a stuffed pasta product, which anticipates applicant's claims.

12. In regards to claim 14, which recites the percent of water in the mixture in the range of 25-35%, Barnes teaches addition of water to moisten the pasta composition between 17.5-30% by weight (column 2, lines 35-45) which falls within applicant's claimed range.

Therefore Barnes anticipates applicant's recitation of claims 1, 2, 4, 6, 8, and 14.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

> Determining the scope and contents of the prior art.
> Ascertaining the differences between the prior art and the claims at issue.
> Resolving the level of ordinary skill in the pertinent art.
> Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims 3, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu (US 3361569) as applied to claims 1, 2, 4, 6, 8, 12-15 above and further in view of Ryan et al (US 6733769 B1) ("Ryan") and further in view of Nussinovich (US 6099876).

16. Claim 1 is rejected as being unpatentable over Hsu, as discussed above.

17. Claim 3 recites the use of konjac flour as a stabilizer in the product. Hsu is silent as to the use of konjac flour as a stabilizer. However Ryan teaches use of konjac flour and other glucomannan sources to increase the viscosity of other starch compounds (column 1, lines 10-40). Ryan also teaches that konjac flour interacts synergistically with hydrocolloids (gums) like carrageenan (cloumn1, lines 7-14) and may be used with starch with or without other gums or stabilizers (column 1, lines 33-35) and also Nussinovich teaches the use of konjac mannan and sodium alginate together to make temperature stable liquid cells for use in food industry. It would have been obvious to the one skilled in the art at the time of the invention to modify Hsu and include konjac flour as part of the gum/ stabilizer in the pasta composition to enhance the thermal stability of the pasta product. Therefore applicant's intended function would have been obvious.

18. Claim 5 recites that the stabilizer comprises of konjac flour and an alginate. Hsu teaches gums and alginates but Hsu is silent as to the specific use of konjac flour as a stabilizer. However Ryan teaches that konjac flour interacts synergistically with hydrocolloids (gums) (cloumn1, lines 7-14) and that konjac may be used with starch with or without other gums or stabilizers (column 1, lines 33-35) and also Nussinovich teaches the use of konjac mannan (konjac flour) and sodium alginate together to make temperature stable liquid stuffed pockets for use in food industry (Column 1,lines 15-

50). It would have been obvious to the one skilled in the art at the time of the invention to modify Hsu and include konjac flour as part of the gum/ alginate combination as the stabilizer in the pasta composition as alginate and konjac work synergistically and form thermally stable product as taught by Ryan and Nussinovich. Therefore, applicant's intended function would have been obvious.

19. Claim 7 recites that the stabilizer comprises of konjac flour, which constitutes 0.5%-1.0% by weight of the mixture. Hsu is silent as to the use of konjac flour as a stabilizer. However, Ryan teaches that konjac flour (glucomannan) can be incorporated into compositions depending on the degree of viscosity and type of product among other things (cloumn5, lines 8-14) and may be used from about 0.5-5.0% (column 5, lines 15-25). Nussinovich teaches making temperature stable composition using konjac mannan (konjac flour) and sodium alginate to form very high temperature stable gels (-20^{0}C to 90^{0}C) for use in food industry for extreme temperature treatment from baking to freezing etc., (Column1, lines 15-40) where the mixture of gums ranges between 0.1-3% (Column2, lines 5-50) which falls in the desired range recited by the applicant. Therefore, it would have been obvious to the one skilled in the art at the time of the invention to modify Hsu and include konjac flour within the recited range of the applicant, with or without an alginate, as part of the gum/ stabilizer in the mixture to make thermally stable pasta with good cooking quality and texture that can withstand temperatures from boiling to freezing. Applicant's intended function would therefore have been obvious.

20. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu (US 3361569) as applied to claims 1, 2, 4, 6, 8, 12-15 above and further in view of Scharschmidt et al (US 3615677) ("Scharschmidt") and Cohen (US 6291009 B1) and in further view of Ryan et al (US 6733769 B1) ("Ryan") and Nussinovich (US 6099876).

21. Claim 16 recites pasta suitable for preparing a stuffed pasta product, the pasta being prepared from a mixture comprising of soy protein isolate, wheat gluten, toasted soy flour, konjac flour, an alginate, water and egg whites. Hsu teaches a vegetable pasta product with no or substantially no wheat flour and containing soy flour, soy powder, gum, alginate, wheat gluten and water. Hsu is silent in regards to soy protein isolate and the kind of soy flour used in his product and the use of konjac flour as a stabilizer.

22. In regards to the toasted soy flour to be used as recited in claim16, Scharschmidt teaches the use of toasted soy flour as toasting improves the flavor of soy flour and renders it more digestive (column 2, lines70-75). Cohen also teaches use of soy products like roasted soy flour to make sheet or rolled dough products (column2, lines 30-46 and column 4, lines 1-10).

23. In regards to isolated soy protein in the recited mixture according to claim16, Scharschmidt teaches increasing soy protein level in pasta in order to make the finished product to dry more readily and rehydrate more rapidly. Cohen is relied on as further

evidence of the conventionality of using soy products like isolated soy protein to increase the protein content of the dough/alimentary paste product (sheet or rolled dough products) (column2, lines 30-46 and column 4, lines 1-10).

24. In regards to konjac flour in the recited mixture according to claim16, Ryan teaches use of konjac flour, with or without other gums, in starchy foods in order to hold more water and have thermal stability of the dough or gel products (column 1, lines 7-60). Nussinovich teaches the use of konjac mannan and sodium alginate together to make temperature stable product for use in food industry.

25. It would have been obvious to the one skilled in the art at the time of the invention to modify Hsu and

- substitute toasted soy flour for the regular soy flour, if necessary, for enhanced taste and better digestibility,
- specifically include soy protein isolate as part of total soy ingredients for the pasta product in order to make the finished pasta product to dry more readily and rehydrate more rapidly,
- include konjac flour as part of the gum/ stabilizer in the pasta composition to form a cohesive thermally stable product using the seed vegetables with no or substantially no wheat flours added as preferred by Hsu.

Therefore applicant's intended function would have been obvious.

26. Claim 17 recites pasta where the konjac flour constitutes 0.5%-1.0% by weight of the mixture and is rejected based on Ryan and Nussinovich as discussed above in

regards to claim 7. Ryan teaches that konjac flour be incorporated into compositions depending on the degree of viscosity and type of product among other things (cloumn5, lines 8-14) be used from about 0.5-5.0% (column 5, lines 15-25). Nussinovich teaches konjac flour and sodium alginate to form very high temperature stable gels (-20^{0}C to 90^{0}C) for use in food industry for extreme temperature treatment from baking to freezing etc., (Column1, lines 15-40) where the mixture of gums ranges between 0.1-3% (Column2, lines 5-50) which falls in the desired range recited by the applicant. Therefore, it would have been obvious to the one skilled in the art at the time of the invention to modify Hsu and include konjac flour within the recited range of the applicant as part of the gum/ stabilizer in the pasta composition to make thermally stable pasta with good cooking and keeping quality and texture and applicant's intended function would have been obvious.

27. Claim 18 recites pasta wherein the alginate constitutes 0.2%-0. 8 % by weight of the mixture. Hsu teaches a mixture of certain alginate gums, including sodium or potassium alginate in the range of 0.25-3% by weight of the mixture (column 1, lines 63-66), which includes the range specified by the applicant.

28. Claim 19 recites pasta of claim 16 wherein the wheat gluten constitutes 15%-20% by weight of the mixture. Hsu teaches addition of wheat gluten conveniently up to 20% by weight (column 2, lines 20-23), which includes applicant's claimed range.

29. Claim 20 recites the pasta of claim 16 wherein the soy flour constitutes 20%-25% by weight of the mixture. Hsu teaches addition of soy flour (seed vegetable powder) (Column 1, lines 54-57) either as flour or powder or granules from 20-60% by weight (column 2, lines 3-6), which includes applicant's claimed range.

30. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes et al (US 5139808) as applied to claims 1, 2, 4, 6, 8, and 14 above and further in view of Scharschmidt et al (US 3615677) ("Scharschmidt") and Cohen (US 6291009 B1) and in further view of Ryan et al (US 6733769 B1) ("Ryan") and Nussinovich (US 6099876).

31. In regards to claim 16 Barnes teaches a pasta product which can be used to make stuffed pastas like ravioli, tortellini etc., with soy flour, gum, sodium alginate, egg white, wheat gluten and soy protein isolate. Barnes is silent in regards to the kind of soy flour used in his product and the use of konjac flour as a stabilizer.

32. In regards to the toasted soy flour to be used as recited in claim16, Scharschmidt teaches the use of toasted soy flour as toasting improves the flavor of soy flour and renders it more digestive (column 2, lines70-75). Cohen also teaches use of soy products like roasted soy flour to make sheet or rolled dough products (column2, lines 30-46 and column 4, lines 1-10).

33. In regards to konjac flour in the recited mixture according to claim16, Ryan teaches use of konjac flour, with or without other gums, in starchy foods in order to hold

more water and have thermal stability of the dough or gel products (column 1, lines 7-60). Nussinovich teaches the use of konjac mannan and sodium alginate together to make temperature stable product for use in food industry.

34. It would have been obvious to the one skilled in the art at the time of the invention to modify Barnes and

- substitute toasted soy flour for the regular soy flour, if necessary, for enhanced taste and better digestibility,
- include konjac flour as part of the gum/ stabilizer in the pasta composition to form a cohesive thermally stable product using the seed vegetables with lentil flours added as suggested by Barnes.

Therefore applicant's intended function would have been obvious.

35. In regards to claim 17, which is rejected based on Ryan and Nussinovich as discussed above in regards to claim 7. Therefore, it would have been obvious to the one skilled in the art at the time of the invention to modify Barnes and include konjac flour within the recited range of the applicant, with or without an alginate, as part of the gum/ stabilizer in the pasta composition to make thermally stable pasta with good cooking quality and texture and applicant's intended function would have been obvious.

36. In regards to claim 18 Barnes teaches sodium alginate as part of gums, in an amount up to 5% by weight based on the weight of the flour mixture (column 2, lines 20-25), which includes the range specified by the applicant.

37. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu (US 3361569) as applied to claims 1, 2, 4, 6, 8, 12-15 above and in view of Scharschmidt et al (US 3615677) ("Scharschmidt") and in further view of Cohen (US 6291009 B1).

38. Claim 9 recites that the soy flour used in the pasta is toasted soy flour. Hsu does not specify the soy flour as being toasted but the soy powders taught by Hsu are pre-cooked. Scharschmidt teaches the use of toasted soy flour as toasting improves the flavor of soy flour and renders it more digestive (column 2, lines70-75). Cohen also teaches use of soy products like roasted soy flour to make sheet or rolled dough products (column2, lines 30-46 and column 4, lines 1-10). Therefore, it would have been obvious to the one with ordinary skill in the art at the time of the invention to modify Hsu based on the teachings from Scharschmidt and Cohen and replace all or part of the soy component by toasted soy flour, if necessary, to improve the taste and digestibility of the pasta product as recited by the applicant.

39. Claim 10 recites that the soy protein constitutes 20%-25% by weight of the mixture. Hsu teaches a vegetable pasta product consisting of seed (soybean) vegetables in particulate form with no or substantially no wheat flours added. Hsu includes soy flour and powder, which includes soy protein but does not specify the amount of soy protein per se. Scharschmidt on the other hand specifies "soy flour" to

include defatted or full fat soy flour, soy protein concentrate and isolated soy protein (Column 3, lines 1-5) and the soy component of Scharschmidt's alimentary paste products (noodles, macaroni etc) as taught lies between 15-40% on dry weight basis as water is added in quantities to make the dough plastic (column 3, lines 25-35). Cohen also makes a soy based dough/ alimentary paste comprising of soy flour and soy protein isolate and teaches the total soy content to be between 60-90% of dry weight of the mix. Based on the water component of Cohen's product that the dry mix is 60-75% of the total weight, the soy content of Cohen's dough mix falls within 36-67%, which encompasses applicant's total soy content of 40-50%. It would have been obvious to the one with ordinary skill in the art at the time of the invention to modify Hsu based on the teachings from Scharschmidt and Cohen and specify the soy protein component of the pasta flour within the recited range of the applicant in order to make the finished pasta product to dry more readily and rehydrate more rapidly.

40. Claim 11 recites that the soy protein is a soy protein isolate. Hsu teaches a vegetable pasta product consisting of seed (soybean) vegetables in particulate form with no or substantially no wheat flours added. Hsu includes soy flour and powder, which includes soy protein but does not specify the soy protein isolate per se. Scharschmidt on the other hand teaches "soy flour" to include defatted or full fat soy flour, soy protein concentrate and isolated soy protein (Column 3, lines 1-5) and so does Cohen (column 2, 34-40) to enhance the protein content of the dough. It would have been obvious to the one with ordinary skill in the art at the time of the invention to

modify Hsu based on the teachings from Scharschmidt and Cohen and specify the soy protein component of the vegetable pasta flour within the recited range of the applicant in order to make the finished pasta product to dry more readily and rehydrate more rapidly.

Remarks/ Conclusion

41. The prior art made of record as part of USPTO form 892 contains references that have not been relied upon in this office action but are considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Chawla whose telephone number is (571) 272-8212. The examiner can normally be reached on 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jyoti Chawla 2/21/06

Jyoti Chawla
Examiner
Art Unit 1761

***

MILTON I. CANO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700